Main Cross Sections

cross section (barn) vs neutron energy(eV)

- Elastic
- Capture
- Fission
- Inelastic
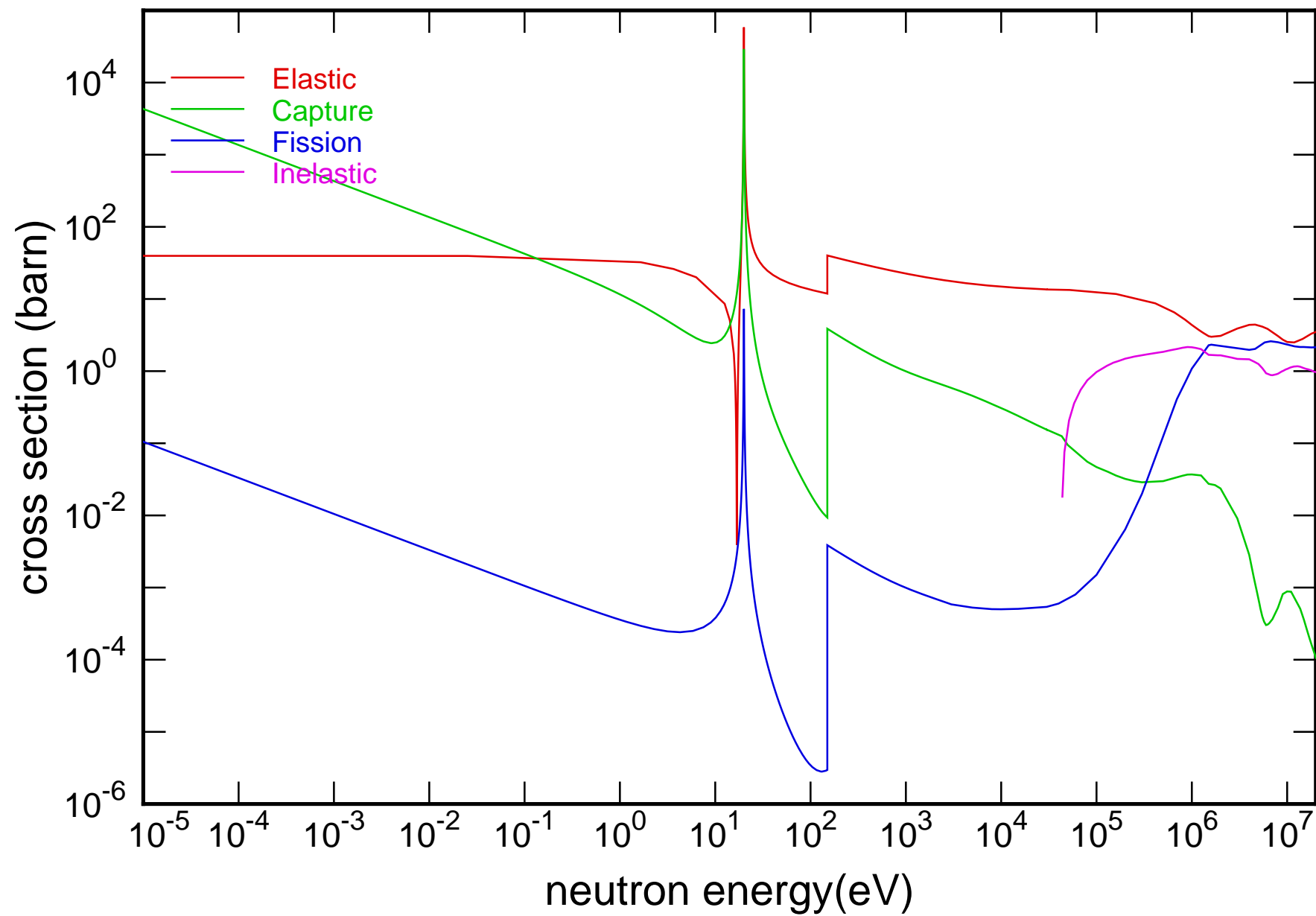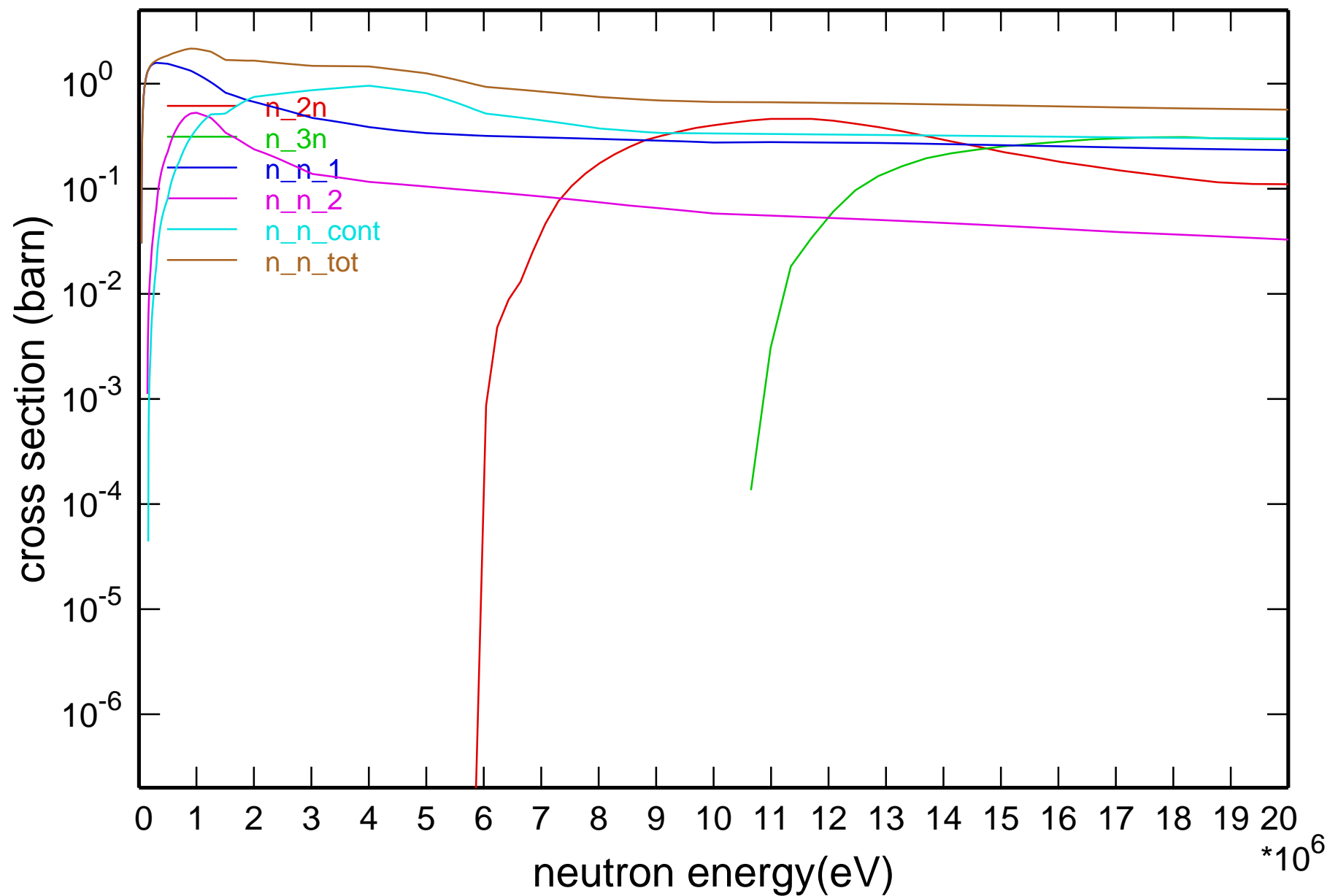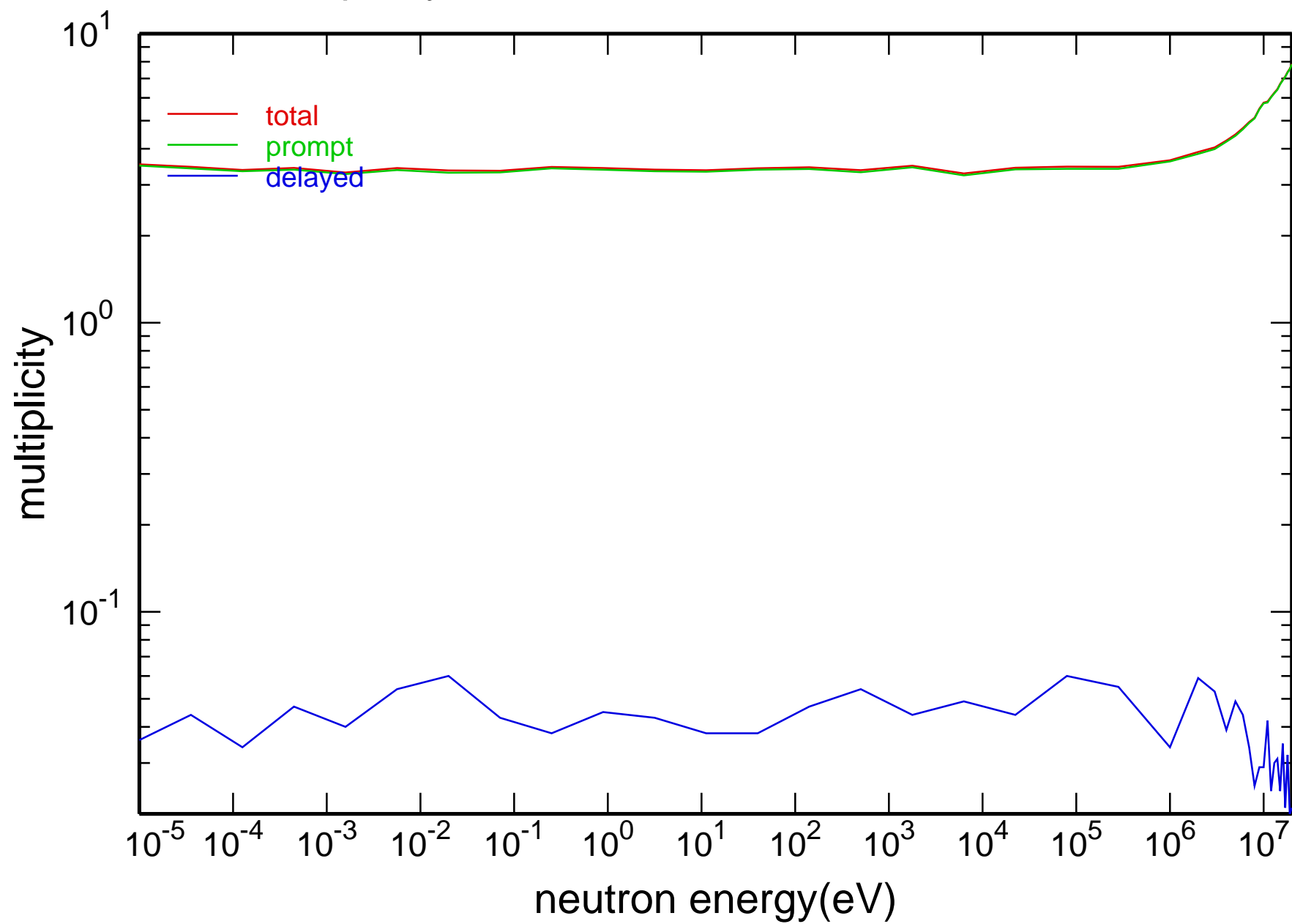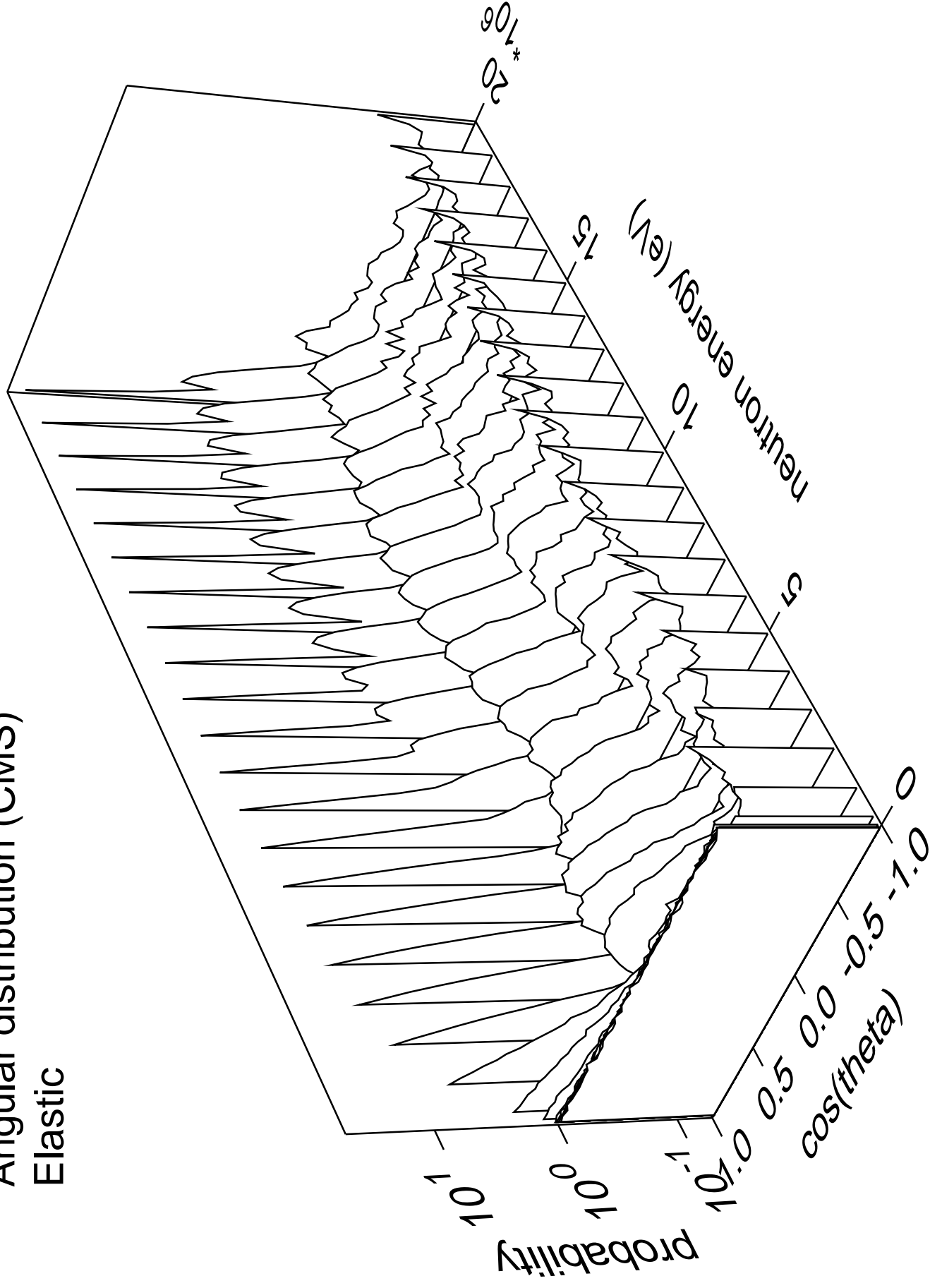
Cross Section

neutron multiplicity for fission

Angular distribution (CMS)
Elastic
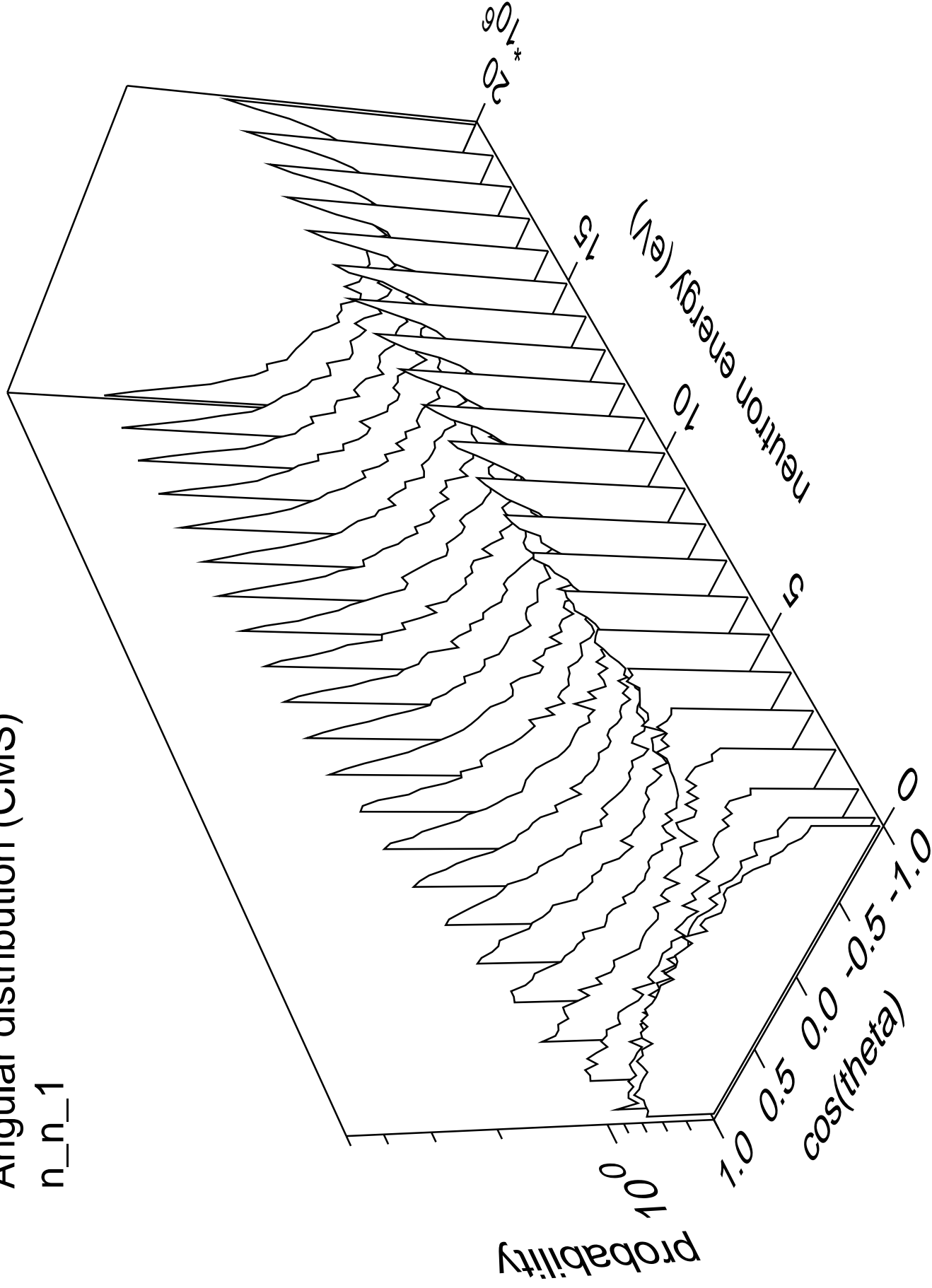
neutron energy (eV)
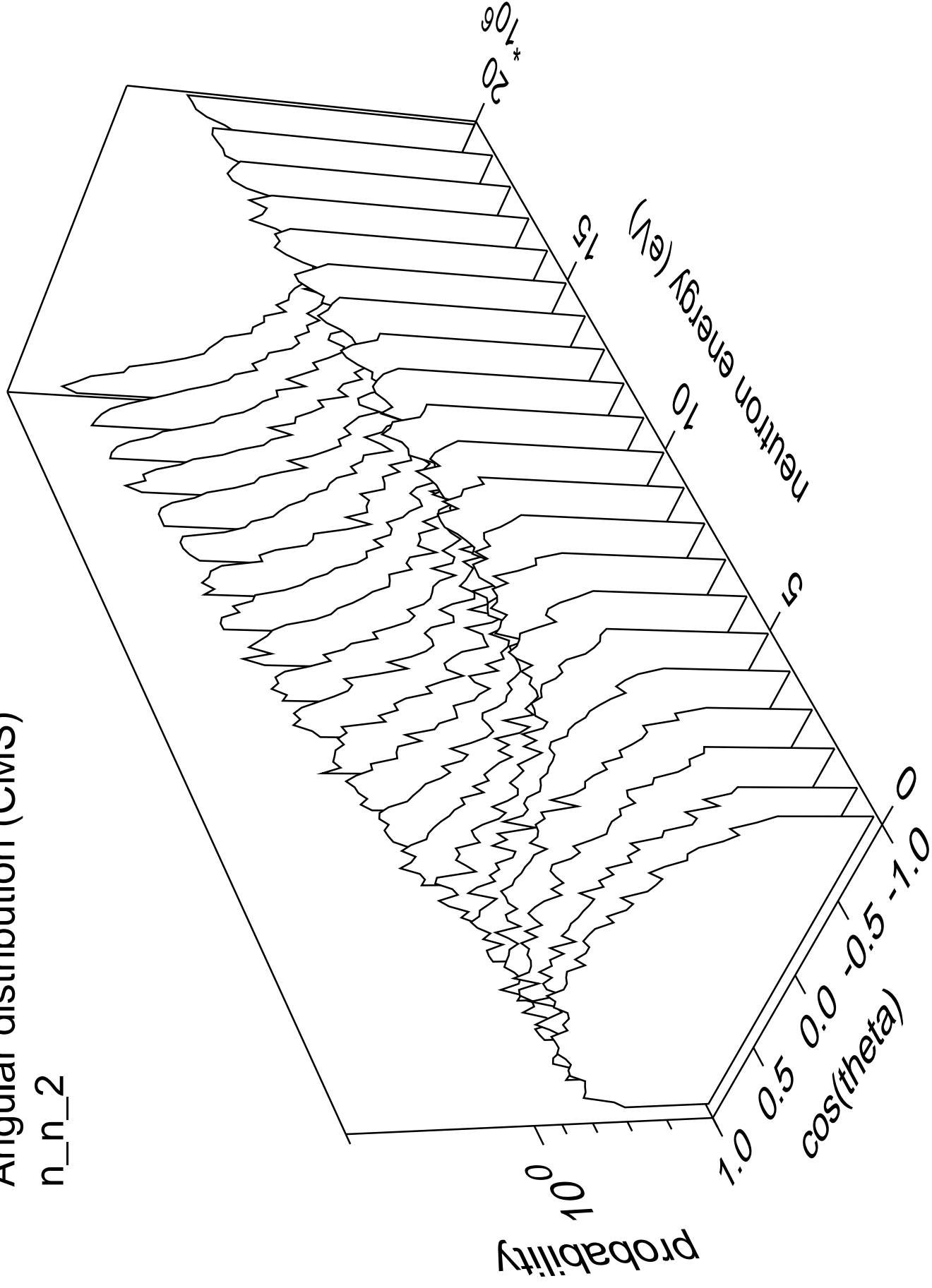
cos(theta)

probability

10^1 10^0 10^{-1}

20 $*10^6$

15

10

5

0

1.0 0.5 0.0 -0.5 -1.0

Angular distribution (CMS)
n_n_1

probability

cos(theta)

neutron energy (eV)

*10⁶

Angular distribution (CMS)
n_n_2

neutron energy (eV)

cos(theta)

probability

Angular distribution (LABS)
n_n_cont

neutron energy (eV)

cos(theta)

probability

20 *10⁶

Angular distribution (CMS)
Fission

neutron energy (eV)

cos(theta)

1.0 0.5 0.0 -0.5 -1.0

probability

20 *10⁶

0

Energy distribution (LABS)
n_2n

probability

10^0

10^{-2}

energy (eV) $*10^6$

neutron energy (eV)

5   10   15

5   10   15   20 $*10^6$

Energy distribution (LABS)
n_3n

probability

10^1

10^{-1}

energy (eV)

0 2 4 6 8 10 *10^6

neutron energy (eV)

10 12 14 16 18 20 *10^6

Energy distribution (LABS)
n_n_cont

probability

10^1

10^{-1}

neutron energy (eV)

5

10

15

20 *10^6

energy (eV)

0

5

10

15

20 *10^6

0
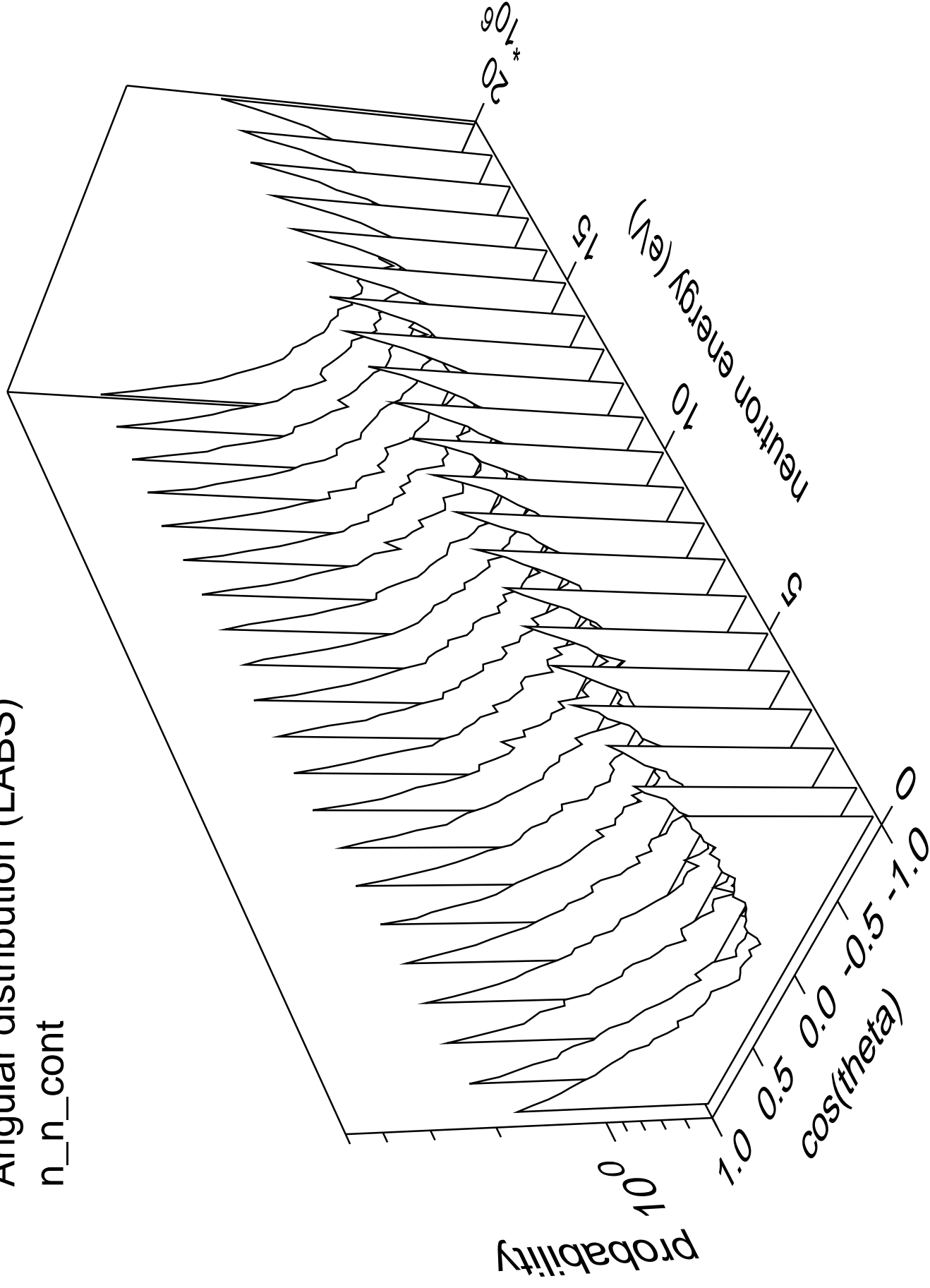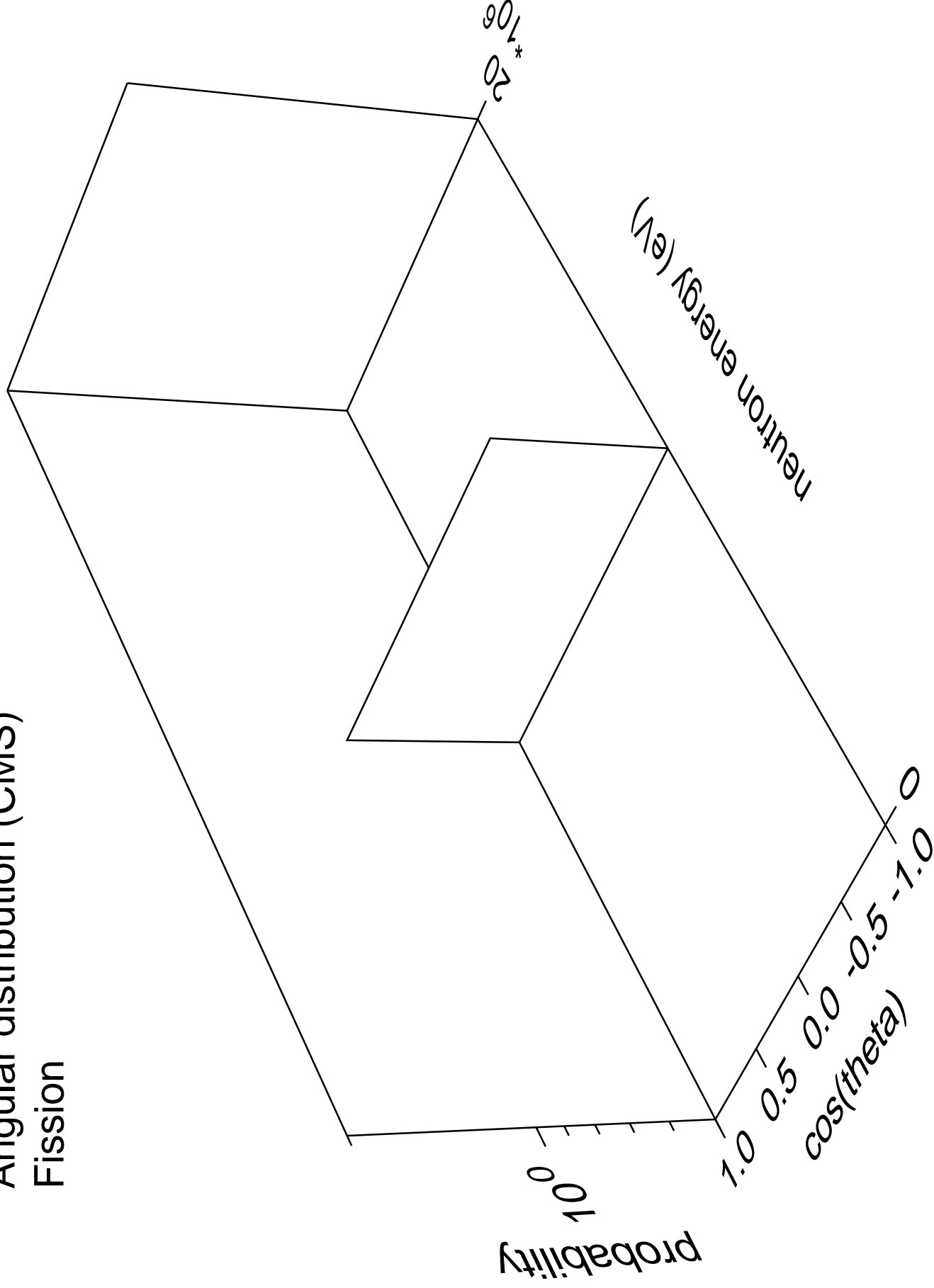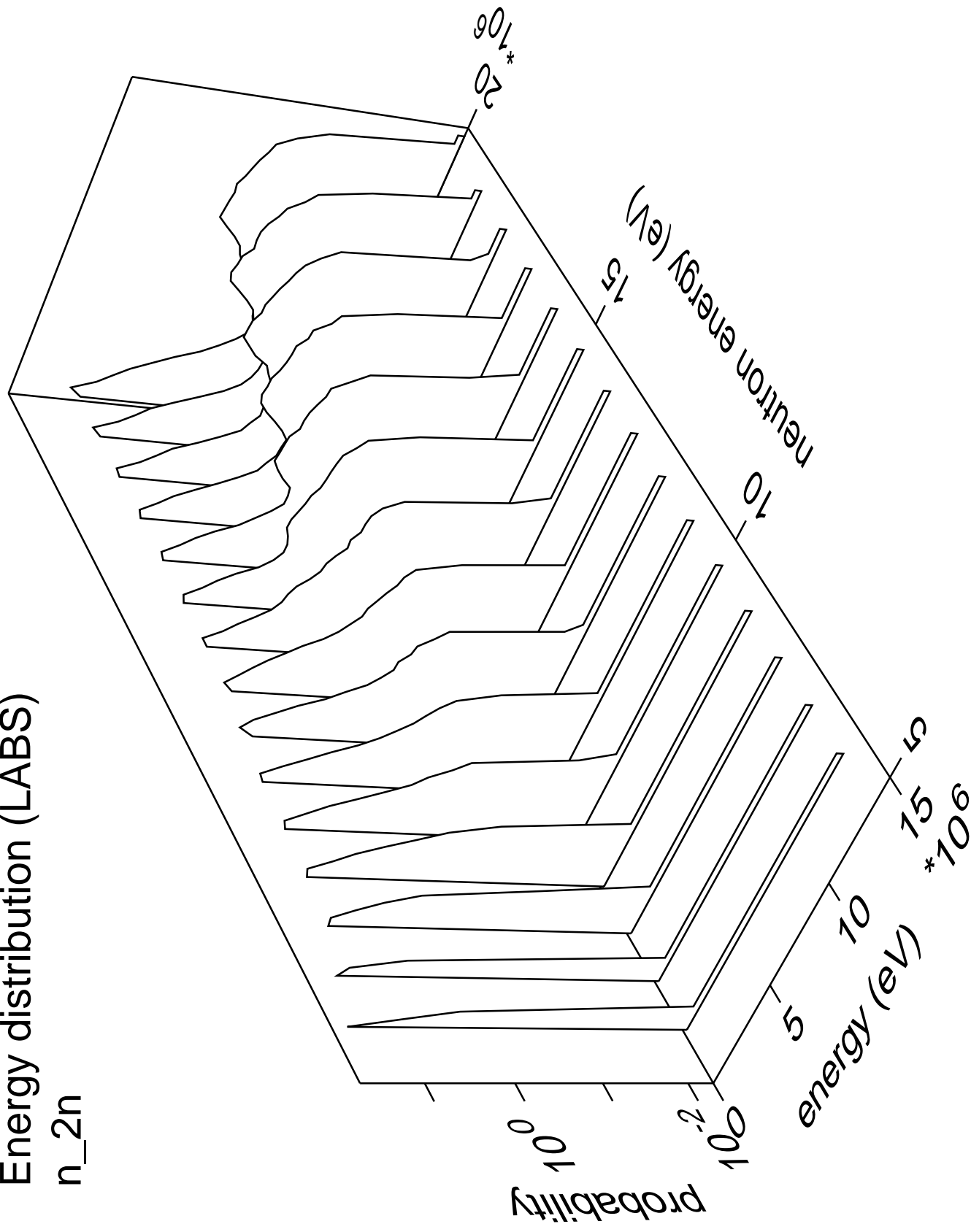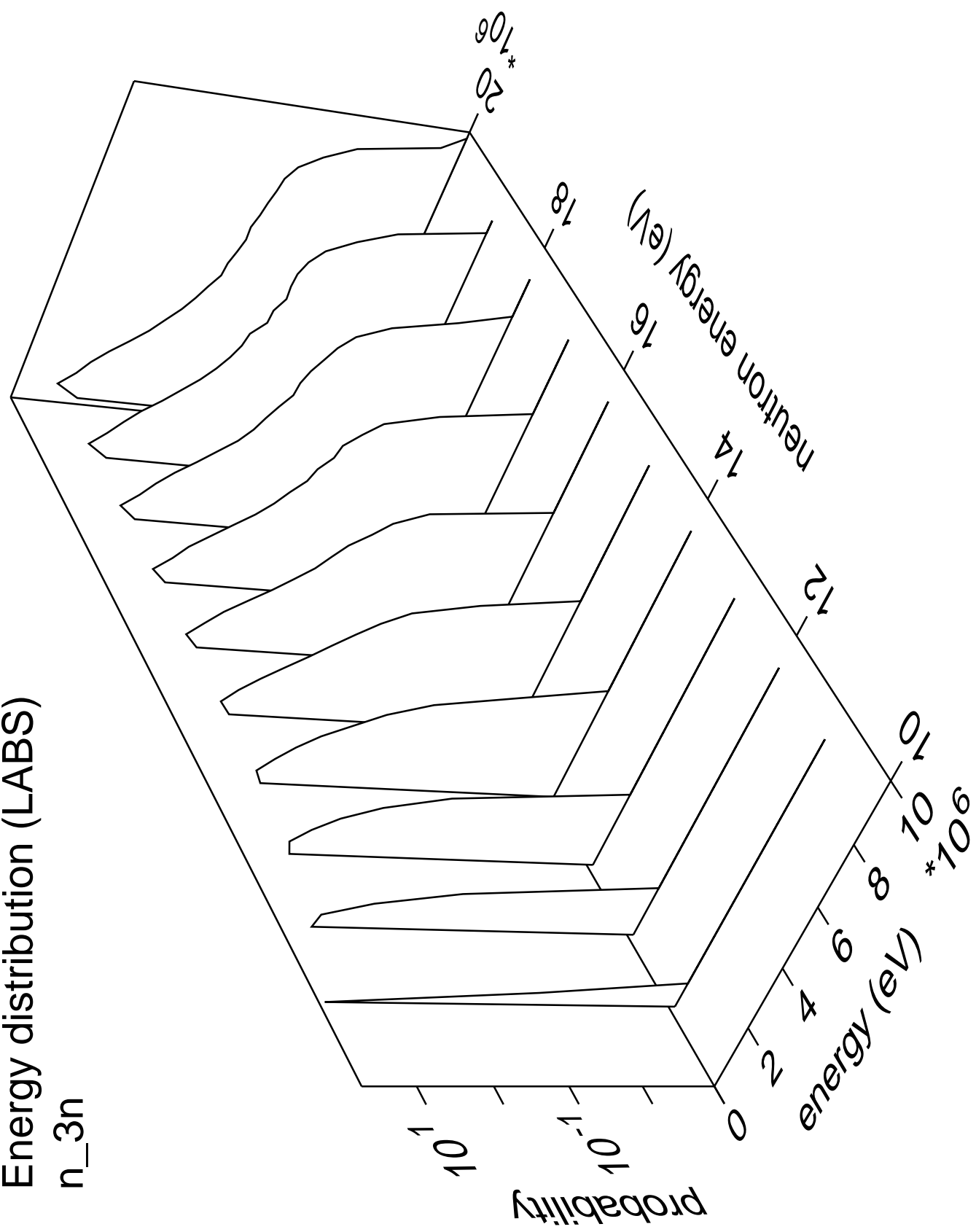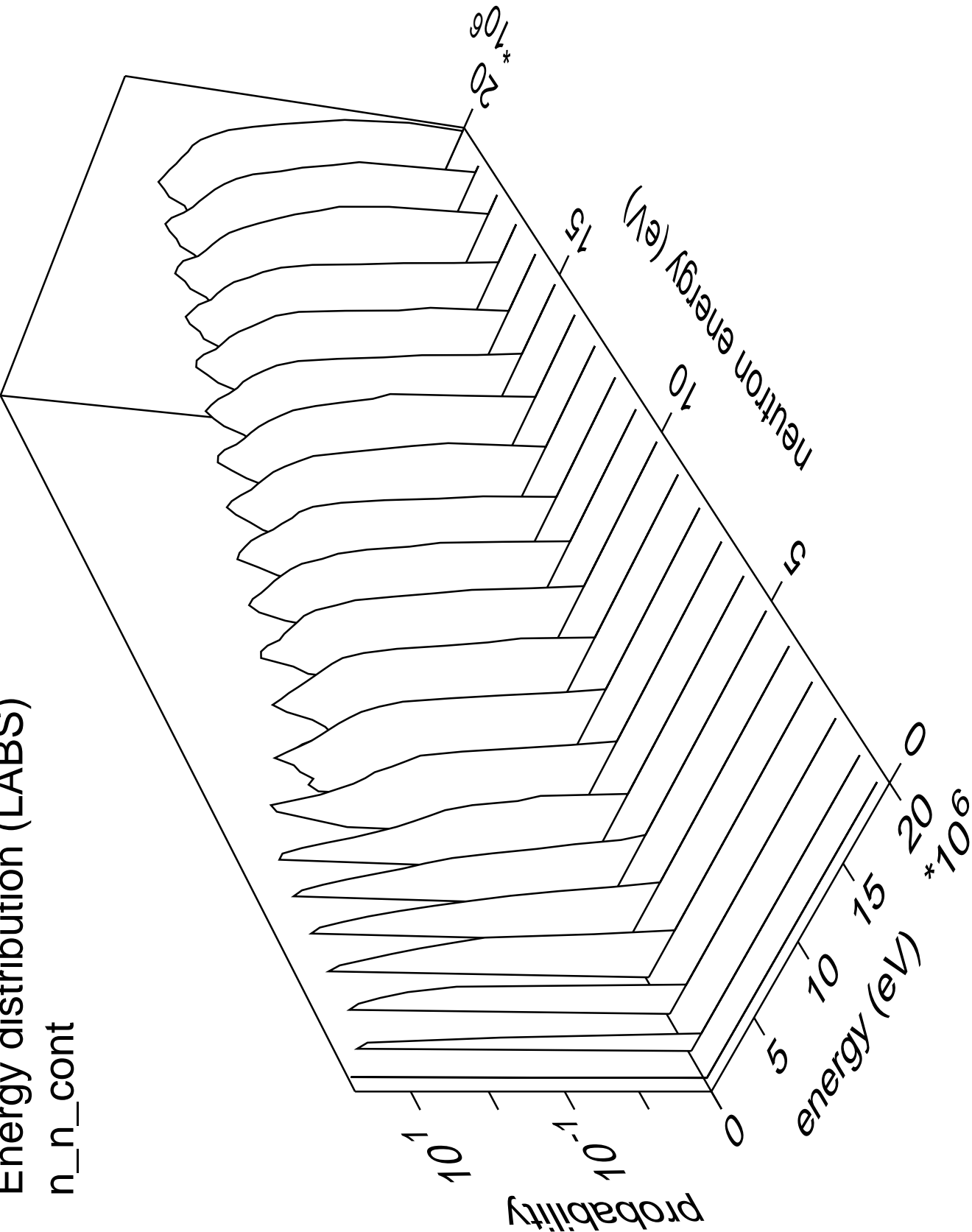
Energy distribution (CMS)
Fission prompt

probability

10^1

10^{-1}

energy (eV) *10⁶

0   5   10   15   20

0   5   10   15   20

neutron energy (eV)

*10⁶